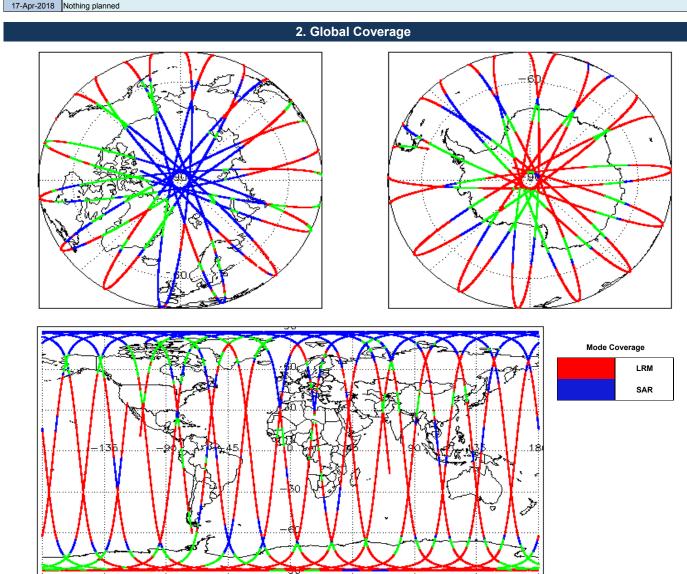


IDEAS+ Daily Report for IOP data:

16/04/2018

30-Apr-2018	Check	L1 & L2	P2P
50-Api-2018	Server check: science-pds.cryosat.esa.int	Nominal	Nominal
CryoSat Ocean Processor	Server check: calval-pds.cryosat.esa.int	Nominal	Nominal
	Product Software Check	Nominal	Nominal
hata Used: Intermediate Ocean Products (IOP) L1B, L2 & P2P Science Data	Product Format Check	Nominal	Nominal
	Product Header Analysis	Nominal	Nominal
	Auxiliary Data File Usage Check	Nominal	Nominal
	Auxiliary Correction Error Check	Nominal	Nominal
	Measurement Confidence Data Check	See Section 4.6	Nominal
	Range, SWH & Backscatter Measurement Check	See Section 5.6, 5.7	See Section 6.6, 6.7
	Ocean Retracking Quality Check	See Section 5.8	See Section 6.8
i	iate Ocean Products (IOP)	Sat Ocean Processor iate Ocean Products (IOP) L2 & P2P Science Data Server check: calval-pds.cryosat.esa.int Product Software Check Product Format Check Product Header Analysis Auxiliary Data File Usage Check Auxiliary Correction Error Check Measurement Confidence Data Check Range, SWH & Backscatter Measurement Check	Sat Ocean Processor Server check: calval-pds.cryosat.esa.int Nominal iate Ocean Products (IOP) Product Software Check Nominal 2 & P2P Science Data Product Format Check Nominal Auxiliary Data File Usage Check Nominal Auxiliary Correction Error Check Nominal Measurement Confidence Data Check See Section 4.6 Range, SWH & Backscatter Measurement Check See Section 5.6, 5.7

MISSION / Instrument News			
15-Apr-2018	None		
16-Apr-2018	None		



3. Instrument Configuration

The SIRAL instrument configuration for the day of acquisition is provided below.

SIRAL - A

0

SIRAL instrument(s) in use:

4. IOP Level 1B Data Quality Check

4.1 L1B Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a binary product file (.DBL).

Number of products with errors:

4.2 L1B Product Header Analysis

For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain. Number of products with errors: 0

4.3 L1B Auxilary Data File Usage Check			
Each product is checked for missing Data Set Descriptors with respect to a pre	e-determined baseline and also to	check the validity of Auxiliary Data Files is correct.	
Number of products with errors: 0			
4.4 L1B Auxiliary Correction Error Check			
CryoSat L1B data includes a correction error flag for each measurement record	d. The bit value of this flag indicat	es any problems when set.	
Number of products with errors: 0			
4.5 L1B Measurement Confidence Data Check			
CryoSat L1B data includes a measurement confidence flag for each measurem	nent record. The bit value of this f	ag indicates any problems when set.	
Attitude Correction Missing: This flag is currently set in error for IOPR produ	ucts due to a configuration issue. T	This is being investigated and will be updated in the next SW update.	
Number of products with errors: 0			
4.6 L1B Waveform Group Data Check			
4.6 LTB waveform Group Data Check			
•			
CryoSat L1B data includes a waveform data flag for each measurement record	-	es any problems when set.	
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is	-	es any problems when set.	
CryoSat L1B data includes a waveform data flag for each measurement record	-	es any problems when set.	
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is	-	es any problems when set. Description	
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16	to be expected.		
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16 Product	to be expected.	Description	
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16 Product CS_OFFL_SIR_IOPM1B_20180416T020212_20180416T020348_C001	to be expected. Test Failed Loss of Echo	Description The tracking echo is missing for one or more records	
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16 Product CS_OFFL_SIR_IOPM1B_20180416T020212_20180416T020348_C001 CS_OFFL_SIR_IOPM1B_20180416T150257_20180416T151252_C001	to be expected. Test Failed Loss of Echo Loss of Echo	Description The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16 Product CS_OFFL_SIR_IOPM1B_20180416T020212_20180416T020348_C001 CS_OFFL_SIR_IOPM1B_20180416T150257_20180416T151252_C001 CS_OFFL_SIR_IOPM1B_20180416T203130_20180416T204346_C001	to be expected. Test Failed Loss of Echo Loss of Echo Loss of Echo	Description The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16 Product CS_OFFL_SIR_IOPM1B_20180416T020212_20180416T020348_C001 CS_OFFL_SIR_IOPM1B_20180416T150257_20180416T151252_C001 CS_OFFL_SIR_IOPM1B_20180416T203130_20180416T204346_C001 CS_OFFL_SIR_IOPN1B_20180416T083759_20180416T083916_C001	to be expected. Test Failed Loss of Echo	Description The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16 Product 16 CS_OFFL_SIR_IOPM1B_20180416T020212_20180416T020348_C001 17 CS_OFFL_SIR_IOPM1B_20180416T150257_20180416T151252_C001 16 CS_OFFL_SIR_IOPM1B_20180416T0203130_20180416T204346_C001 16 CS_OFFL_SIR_IOPM1B_20180416T083759_20180416T083916_C001 17 CS_OFFL_SIR_IOPN1B_20180416T083759_20180416T084332_C001 17 CS_OFFL_SIR_IOPN1B_20180416T125641_20180416T084332_C001 17 CS_OFFL_SIR_IOPN1B_20180416T125641_20180416T125805_C001 17	to be expected. Test Failed Loss of Echo	Description The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16 Product 16 CS_OFFL_SIR_IOPM1B_20180416T020212_20180416T020348_C001 16 CS_OFFL_SIR_IOPM1B_20180416T150257_20180416T151252_C001 16 CS_OFFL_SIR_IOPM1B_20180416T0203130_20180416T020346_C001 16 CS_OFFL_SIR_IOPM1B_20180416T083759_20180416T083916_C001 16 CS_OFFL_SIR_IOPN1B_20180416T084116_20180416T08432_C001 16 CS_OFFL_SIR_IOPN1B_20180416T125641_20180416T125805_C001 16 CS_OFFL_SIR_IOPN1B_20180416T133318_20180416T133727_C001 17	to be expected. Test Failed Loss of Echo	Description The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16 Product 16 CS_OFFL_SIR_IOPM1B_20180416T020212_20180416T020348_C001 15222_001 CS_OFFL_SIR_IOPM1B_20180416T150257_20180416T151252_C001 1523_001 CS_OFFL_SIR_IOPM1B_20180416T083759_20180416T083916_C001 1633_001 CS_OFFL_SIR_IOPN1B_20180416T083759_20180416T084332_C001 1633_001 CS_OFFL_SIR_IOPN1B_20180416T125641_20180416T125805_C001 1633_001 CS_OFFL_SIR_IOPN1B_20180416T133318_20180416T133727_C001 1633_01 CS_OFFL_SIR_IOPN1B_20180416T133318_20180416T134632_C001 1633_01	to be expected. Test Failed Loss of Echo	Description The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16 Product CS_OFFL_SIR_IOPM1B_20180416T020212_20180416T020348_C001 CS_OFFL_SIR_IOPM1B_20180416T150257_20180416T151252_C001 CS_OFFL_SIR_IOPM1B_20180416T0203130_20180416T083916_C001 CS_OFFL_SIR_IOPN1B_20180416T083759_20180416T083916_C001 CS_OFFL_SIR_IOPN1B_20180416T083759_20180416T084332_C001	to be expected.	Description The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	
CryoSat L1B data includes a waveform data flag for each measurement record Loss of Echo Flag: This flag is currently set for products over land, but this is Number of products with errors: 16 Product 16 CS_OFFL_SIR_IOPM1B_20180416T020212_20180416T020348_C001 CS_OFFL_SIR_IOPM1B_20180416T020312_20180416T05257_20180416T151252_C001 CS_OFFL_SIR_IOPM1B_20180416T0203130_20180416T1204346_C001 CS_OFFL_SIR_IOPM1B_20180416T083759_20180416T083916_C001 CS_OFFL_SIR_IOPN1B_20180416T083759_20180416T084332_C001 CS_OFFL_SIR_IOPN1B_20180416T125641_20180416T125805_C001 CS_OFFL_SIR_IOPN1B_20180416T133318_20180416T133727_C001 CS_OFFL_SIR_IOPN1B_20180416T184233_20180416T184632_C001 CS_OFFL_SIR_IOPN1B_20180416T184233_20180416T184632_C001 CS_OFFL_SIR_IOPN1B_20180416T208050_20180416T184632_C001	to be expected. Test Failed Loss of Echo Loss of Echo	Description The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records The tracking echo is missing for one or more records	

CS_OFFL_SIR_IOPR1B_20180416T034430_20180416T035250_C001 CS_OFFL_SIR_IOPR1B_20180416T170652_20180416T171417_C001 CS_OFFL_SIR_IOPR1B_20180416T205531_20180416T205924_C001

CS_OFFL_SIR_IOPR1B_20180416T033111_20180416T033454_C001

5. IOP Level 2 Data Quality Check

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

The tracking echo is missing for one or more records

5.1 L2 Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a binary product file (.DBL). Number of products with errors:

5.2 L2 Product Header Analysis

For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain. Number of products with errors:

Loss of Echo

Loss of Echo

Loss of Echo

Loss of Echo

5.3 L2 Auxiliary Data File Usage Check

Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct. Number of products with errors:

5.4 L2 Auxiliary Correction Error Check

For all products, the auxiliary corrections within the Geophysical Group are checked for the default error value (32767).

Number of products with errors:

5.5 L2 Measurement Confidence Data Check

CryoSat L2 data includes a measurement confidence flag for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

5.6 L2 Range Measurement Check

CryoSat L2 data includes an Ocean and Ice Range Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Currently, there are two common status flags raised in the Level 2 products which are expected due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues which may arise from this test.

Ocean Range Averaging Status Flag: This flag is currently set for products over land and sea ice, but this is to be expected.

Ice Range Averaging Status Flag: This flag is currently set for products over land, but this is to be expected. 76

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20180415T234654_20180416T001218_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T004418_20180416T005518_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.

CS_OFFL_SIR_IOPM_2_20180416T010056_20180416T011211_C001 CS OFFL SIR IOPM 2 20180416T011819 20180416T012420 C001 CS_OFFL_SIR_IOPM_2_20180416T012551_20180416T015443_C001 CS_OFFL_SIR_IOPM_2_20180416T020212_20180416T020348_C001 CS OFFL SIR IOPM 2 20180416T021717 20180416T025113 C001 CS OFFL SIR IOPM 2 20180416T025727 20180416T030251 C001 CS OFFL SIR IOPM 2 20180416T030429 20180416T031045 C001 CS OFFL SIR IOPM 2 20180416T034058 20180416T034430 C001 CS_OFFL_SIR_IOPM_2_20180416T035648_20180416T040527_C001 CS_OFFL_SIR_IOPM_2_20180416T040812_20180416T043036_C001 CS OFFL SIR IOPM 2 20180416T043623 20180416T043730 C001 CS_OFFL_SIR_IOPM_2_20180416T044343_20180416T045653_C001 CS OFFL SIR IOPM 2 20180416T045835 20180416T050317 C001 CS_OFFL_SIR_IOPM_2_20180416T053518_20180416T060850_C001 CS_OFFL_SIR_IOPM_2_20180416T061133_20180416T061628_C001 CS OFFL SIR IOPM 2 20180416T062354 20180416T062440 C001 CS OFFL SIR IOPM 2 20180416T062728 20180416T065843 C001 CS_OFFL_SIR_IOPM_2_20180416T071848_20180416T072606_C001 CS OFFL SIR IOPM 2 20180416T073048 20180416T074824 C001 CS_OFFL_SIR_IOPM_2_20180416T075013_20180416T075526_C001 CS_OFFL_SIR_IOPM_2_20180416T075602_20180416T075736_C001 CS OFFL SIR IOPM 2 20180416T080528 20180416T081907 C001 CS OFFL SIR IOPM 2 20180416T082120 20180416T083320 C001 CS OFFL SIR IOPM 2 20180416T090047 20180416T091107 C001 CS OFFL SIR IOPM 2 20180416T091247 20180416T092717 C001 CS OFFL SIR IOPM 2 20180416T092936 20180416T093437 C001 CS_OFFL_SIR_IOPM_2_20180416T093501_20180416T093511_C001 CS_OFFL_SIR_IOPM_2_20180416T093516_20180416T093617_C001 CS_OFFL_SIR_IOPM_2_20180416T094312_20180416T094436_C001 CS OFFL SIR IOPM 2 20180416T094735 20180416T095631 C001 CS_OFFL_SIR_IOPM_2_20180416T100010_20180416T100458_C001 CS_OFFL_SIR_IOPM_2_20180416T104345_20180416T110642_C001 CS_OFFL_SIR_IOPM_2_20180416T111009_20180416T111353_C001 CS_OFFL_SIR_IOPM_2_20180416T111400_20180416T111409_C001 CS_OFFL_SIR_IOPM_2_20180416T112009_20180416T114627_C001 CS OFFL SIR IOPM 2 20180416T122030 20180416T124616 C001 CS_OFFL_SIR_IOPM_2_20180416T124751_20180416T125307_C001 CS_OFFL_SIR_IOPM_2_20180416T125955_20180416T131109_C001 CS OFFL SIR IOPM 2 20180416T131647 20180416T133318 C001 CS OFFL SIR IOPM 2 20180416T135718 20180416T141510 C001 CS_OFFL_SIR_IOPM_2_20180416T141941_20180416T142605_C001 CS OFFL SIR IOPM 2 20180416T143901 20180416T150247 C001 CS_OFFL_SIR_IOPM_2_20180416T150257_20180416T151252_C001 CS OFFL SIR IOPM 2 20180416T154832 20180416T160519 C001 CS_OFFL_SIR_IOPM_2_20180416T160721_20180416T161233_C001 CS_OFFL_SIR_IOPM_2_20180416T161833_20180416T164046_C001 CS OFFL SIR IOPM 2 20180416T164330 20180416T165258 C001 CS_OFFL_SIR_IOPM_2_20180416T170427_20180416T170652_C001 CS_OFFL_SIR_IOPM_2_20180416T172326_20180416T174345_C001 CS OFFL SIR IOPM 2 20180416T175831 20180416T182950 C001 CS_OFFL_SIR_IOPM_2_20180416T183011_20180416T183040_C001

Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ice Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status Ice Range Averaging Status Ocean Range Averaging Status

The Ocean Range Averaging Status Flag has been set for one or more record The Ice Range Averaging Status Flag has been set for one or more ecords The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records. The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records. The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more ecords The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more record The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more ecords The Ocean Range Averaging Status Flag has been set for one or more records. The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records. The Ocean Range Averaging Status Flag has been set for one or more records The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records. The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records. The Ocean Range Averaging Status Flag has been set for one or more ecords The Ice Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more ecords The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records The Ocean Range Averaging Status Flag has been set for one or more records

CS_OFFL_SIR_IOPM_2_20180416T184719_20180416T190634_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T190645_20180416T191928_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T193230_20180416T193546_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T193731_20180416T195307_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T195510_20180416T200509_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T202713_20180416T202921_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T203130_20180416T204346_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T210012_20180416T210111_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T210715_20180416T211003_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T211017_20180416T211447_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T211656_20180416T213134_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T221835_20180416T224241_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T224515_20180416T225351_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T225622_20180416T232129_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T235610_20180417T000800_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20180416T025405_20180416T025727_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20180416T143543_20180416T143656_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPN_2_20180416T193043_20180416T193230_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180416T020348_20180416T021352_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180416T093437_20180416T093444_C001	Ice Range Averaging Status	The Ice Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180416T125805_20180416T125955_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180416T193714_20180416T193730_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180416T215439_20180416T215609_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.

5.7 L2 SWH and Backscatter Measurement Check

CryoSat L2 data includes a SWH Averaging Status flag and an Ocean and Ice Backscatter Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Currently, there are three common status flags raised in the Level 2 products which are expected due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues which may arise from this test.

SWH Averaging Status Flag: This flag is currently set for products over land and sea ice, but this is to be expected.

Ocean Backscatter Averaging Status Flag: This flag is currently set for products over land and sea ice, but this is to be expected.

Ice Backscatter Averaging Status Flag: This flag is currently set for products over land, but this is to be expected. 77

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOPM_2_20180415T234654_20180416T001218_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T004418_20180416T005518_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T010056_20180416T011211_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T011537_20180416T011619_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T011819_20180416T012420_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T012551_20180416T015443_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T020212_20180416T020348_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T021717_20180416T025113_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T025727_20180416T030251_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T030429_20180416T031045_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T034058_20180416T034430_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T035648_20180416T040527_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T040812_20180416T043036_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T043623_20180416T043730_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T043735_20180416T044143_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T044343_20180416T045653_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T045835_20180416T050317_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T053518_20180416T060850_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T061133_20180416T061628_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPM_2_20180416T062728_20180416T065843_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.

CS_OFFL_SIR_IOPM_2_20180416T070103_20180416T070315_C001 CS OFFL SIR IOPM 2 20180416T071848 20180416T072606 C001 CS_OFFL_SIR_IOPM_2_20180416T073048_20180416T074824_C001 CS_OFFL_SIR_IOPM_2_20180416T075013_20180416T075526_C001 CS OFFL SIR IOPM 2 20180416T075602 20180416T075736 C001 CS_OFFL_SIR_IOPM_2_20180416T080528_20180416T081907_C001 CS OFFL SIR IOPM 2 20180416T082120 20180416T083320 C001 CS OFFL SIR IOPM 2 20180416T090047 20180416T091107 C001 CS_OFFL_SIR_IOPM_2_20180416T091247_20180416T092717_C001 CS_OFFL_SIR_IOPM_2_20180416T092936_20180416T093437_C001 CS OFFL SIR IOPM 2 20180416T093501 20180416T093511 C001 CS_OFFL_SIR_IOPM_2_20180416T093516_20180416T093617_C001 CS OFFL SIR IOPM 2 20180416T094312 20180416T094436 C001 CS_OFFL_SIR_IOPM_2_20180416T094735_20180416T095631_C001 CS_OFFL_SIR_IOPM_2_20180416T100010_20180416T100458_C001 CS OFFL SIR IOPM 2 20180416T104345 20180416T110642 C001 CS OFFL SIR IOPM 2 20180416T111009 20180416T111353 C001 CS_OFFL_SIR_IOPM_2_20180416T111400_20180416T111409_C001 CS OFFL SIR IOPM 2 20180416T112009 20180416T114627 C001 CS_OFFL_SIR_IOPM_2_20180416T122030_20180416T124616_C001 CS_OFFL_SIR_IOPM_2_20180416T124751_20180416T125307_C001 CS_OFFL_SIR_IOPM_2_20180416T125955_20180416T131109_C001 CS_OFFL_SIR_IOPM_2_20180416T131647_20180416T133318_C001 CS OFFL SIR IOPM 2 20180416T141941 20180416T142605 C001 CS OFFL SIR IOPM 2 20180416T142751 20180416T143341 C001 CS OFFL SIR IOPM 2 20180416T143901 20180416T150247 C001 CS_OFFL_SIR_IOPM_2_20180416T150257_20180416T151252_C001 CS_OFFL_SIR_IOPM_2_20180416T154832_20180416T160519_C001 CS_OFFL_SIR_IOPM_2_20180416T160721_20180416T161233_C001 CS OFFL SIR IOPM 2 20180416T161833 20180416T164046 C001 CS_OFFL_SIR_IOPM_2_20180416T164330_20180416T165258_C001 CS_OFFL_SIR_IOPM_2_20180416T170427_20180416T170652_C001 CS OFFL SIR IOPM 2 20180416T172326 20180416T174345 C001 CS_OFFL_SIR_IOPM_2_20180416T174909_20180416T175135_C001 CS_OFFL_SIR_IOPM_2_20180416T175831_20180416T182950_C001 CS OFFL SIR IOPM 2 20180416T184719 20180416T190634 C001 CS_OFFL_SIR_IOPM_2_20180416T190645_20180416T191928_C001 CS_OFFL_SIR_IOPM_2_20180416T193230_20180416T193546_C001 CS OFFL SIR IOPM 2 20180416T193731 20180416T195307 C001 CS_OFFL_SIR_IOPM_2_20180416T195510_20180416T200509_C001 CS_OFFL_SIR_IOPM_2_20180416T202713_20180416T202921_C001 CS OFFL SIR IOPM 2 20180416T203130 20180416T204346 C001 CS_OFFL_SIR_IOPM_2_20180416T210012_20180416T210111_C001 CS_OFFL_SIR_IOPM_2_20180416T210715_20180416T211003_C001 CS_OFFL_SIR_IOPM_2_20180416T211017_20180416T211447_C001 CS_OFFL_SIR_IOPM_2_20180416T211656_20180416T213134_C001 CS OFFL SIR IOPM 2 20180416T221835 20180416T224241 C001 CS_OFFL_SIR_IOPM_2_20180416T224515_20180416T225351_C001 CS_OFFL_SIR_IOPM_2_20180416T225622_20180416T232129_C001 CS OFFL SIR IOPM 2 20180416T235610 20180417T000800 C001 CS_OFFL_SIR_IOPN_2_20180416T143543_20180416T143656_C001

Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status

Ice Backscatter Averaging Status

SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status

Ice Backscatter Averaging Status

Ice Backscatter Averaging Status

Ice Backscatter Averaging Status

SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status

Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status

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Ice Backscatter Averaging Status SWH Averaging Status, Ocean

Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status

Ice Backscatter Averaging Status

Ice Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean

Backscatter Averaging Status

SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status SWH Averaging Status, Ocean Backscatter Averaging Status The Ice Backscatter Averaging Status Flag has been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records. The Ice Backscatter Averaging Status Flag has been set for one or more

records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records. The SWH and Ocean Averaging Status Flags have been set for one or

The SWH and Ocean Averaging Status Flags have been set for one or The SWH and Ocean Averaging Status Flags have been set for one or

more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The Ice Backscatter Averaging Status Flag has been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

The SWH and Ocean Averaging Status Flags have been set for one or more records.

CS_OFFL_SIR_IOPN_2_20180416T193043_20180416T193230_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180416T020348_20180416T021352_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180416T093437_20180416T093444_C001	Ice Backscatter Averaging Status	The Ice Backscatter Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180416T125805_20180416T125955_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180416T193714_20180416T193730_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOPR_2_20180416T215439_20180416T215609_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.

5.8 L2 Ocean Retracking Quality Check

CryoSat L2 data includes an ocean retracking quality flag for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Ocean Retracking Quality Flag: This flag is currently set for products over land and sea ice, but this is to be expected. The number of products with this error flag set is given below.

Number of products with errors:

6. IOP L2 Pole-to-Pole Data Quality Check

6.1 P2P Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a NetCDF product file (.nc). Number of products with errors:

6.2 P2P Product Header Analysis

For all products, a series of pre-defined checks are performed on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain. Number of products with errors:

6.3 P2P Auxiliary Data File Usage Check

Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct.

Number of products with errors:

6.4 P2P Auxiliary Correction Error Check

For all products, the auxiliary corrections within the Geophysical Group are checked for the default error value (32767).

Number of products with errors:

6.5 P2P Measurement Confidence Data Check

CryoSat P2P data includes a measurement confidence flag for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

6.6 P2P Range Measurement Check

CryoSat P2P data includes an Ocean and Ice Range Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Currently, there are two common status flags raised in the P2P products which are expected due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues which may arise from this test.

Ocean Range Averaging Status Flag: This flag is currently set for products over land and sea ice, but this is to be expected.

Ice Range Averaging Status Flag: This flag is currently set for products over land, but this is to be expected. 30

Number of products with errors:

Product Test Failed Description The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR IOP 2 20180415T233936 20180416T002910 C001 Ocean Range Averaging Status ecords Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flags have been set for one CS_OFFL_SIR_IOP_2__20180416T002910_20180416T011850_C001 Range Averaging Status or more records. Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flags have been set for one CS_OFFL_SIR_IOP_2__20180416T011850_20180416T020824_C001 Range Averaging Status or more records. Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flags have been set for one CS_OFFL_SIR_IOP_2__20180416T020824_20180416T025803_C001 Range Averaging Status or more records The Ocean and Ice Range Averaging Status Flags have been set for one Ocean Range Averaging Status, Ice CS_OFFL_SIR_IOP_2__20180416T025803_20180416T034738_C001 Range Averaging Status or more records. The Ocean and Ice Range Averaging Status Flags have been set for one Ocean Range Averaging Status, Ice CS_OFFL_SIR_IOP_2__20180416T034738_20180416T043717_C001 Range Averaging Status or more records. Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flags have been set for one CS_OFFL_SIR_IOP_2__20180416T043717_20180416T052651_C001 Range Averaging Status or more records The Ocean Range Averaging Status Flag has been set for one or more CS_OFFL_SIR_IOP_2__20180416T052651_20180416T061630_C001 Ocean Range Averaging Status records. The Ocean and Ice Range Averaging Status Flags have been set for one Ocean Range Averaging Status, Ice CS_OFFL_SIR_IOP_2__20180416T061630_20180416T070605_C001 Range Averaging Status or more records Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flags have been set for one CS_OFFL_SIR_IOP_2__20180416T070605_20180416T075544_C001 Range Averaging Status or more records The Ocean Range Averaging Status Flag has been set for one or more CS_OFFL_SIR_IOP_2__20180416T075544_20180416T084518_C001 Ocean Range Averaging Status records. Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flags have been set for one CS_OFFL_SIR_IOP_2__20180416T084518_20180416T093457_C001 Range Averaging Status or more records The Ocean Range Averaging Status Flag has been set for one or more CS OFFL SIR IOP 2 20180416T093457 20180416T102432 C001 Ocean Range Averaging Status records Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flags have been set for one CS_OFFL_SIR_IOP_2__20180416T102432_20180416T111411_C001 Range Averaging Status or more records. The Ocean Range Averaging Status Flag has been set for one or more CS_OFFL_SIR_IOP_2__20180416T111411_20180416T120345_C001 Ocean Range Averaging Status ecords Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flags have been set for one CS OFFL SIR IOP 2 20180416T120345 20180416T125325 C001 Range Averaging Status or more records. The Ocean Range Averaging Status Flag has been set for one or more CS_OFFL_SIR_IOP_2__20180416T125325_20180416T134259_C001 Ocean Range Averaging Status records. Ocean Range Averaging Status, Ice The Ocean and Ice Range Averaging Status Flags have been set for one CS OFFL SIR IOP 2 20180416T134259 20180416T143238 C001 Range Averaging Status or more records. The Ocean Range Averaging Status Flag has been set for one or more CS_OFFL_SIR_IOP_2__20180416T143238_20180416T152212_C001

Ocean Range Averaging Status

records.

CS_OFFL_SIR_IOP_220180416T152212_20180416T161152_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T161152_20180416T170126_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T170126_20180416T175105_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T175105_20180416T184039_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T184039_20180416T193019_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T193019_20180416T201953_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T201953_20180416T210932_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T210932_20180416T215907_C001	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T215907_20180416T224846_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T224846_20180416T233820_C001	Ocean Range Averaging Status, Ice Range Averaging Status	The Ocean and Ice Range Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T233820_20180417T002759_C003	Ocean Range Averaging Status	The Ocean Range Averaging Status Flag has been set for one or more records.

6.7 P2P SWH and Backscatter Measurement Check

CryoSat P2P data includes a SWH Averaging Status flag and an Ocean and Ice Backscatter Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Currently, there are three common status flags raised in the P2P products which are expected due to surface type. All common flags are summarised in the list below, followed by a table highlighting any additional issues which may arise from this test.

SWH Averaging Status Flag: This flag is currently set for products over land and sea ice, but this is to be expected.

Ocean Backscatter Averaging Status Flag: This flag is currently set for products over land and sea ice, but this is to be expected.

Ice Backscatter Averaging Status Flag: This flag is currently set for products over land, but this is to be expected. 30

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_IOP_220180415T233936_20180416T002910_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T002910_20180416T011850_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T011850_20180416T020824_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T020824_20180416T025803_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T025803_20180416T034738_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T034738_20180416T043717_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T043717_20180416T052651_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T052651_20180416T061630_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T061630_20180416T070605_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T070605_20180416T075544_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T075544_20180416T084518_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T084518_20180416T093457_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T093457_20180416T102432_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T102432_20180416T111411_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T111411_20180416T120345_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T120345_20180416T125325_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T125325_20180416T134259_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T134259_20180416T143238_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T143238_20180416T152212_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T152212_20180416T161152_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T161152_20180416T170126_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T170126_20180416T175105_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.

CS_OFFL_SIR_IOP_220180416T175105_20180416T184039_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T184039_20180416T193019_C001	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T193019_20180416T201953_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T201953_20180416T210932_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T210932_20180416T215907_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T215907_20180416T224846_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T224846_20180416T233820_C001	SWH Averaging Status, Ocean Backscatter Averaging Status, Ice Backscatter Averaging Status	The SWH, Ocean and Ice Averaging Status Flags have been set for one or more records.
CS_OFFL_SIR_IOP_220180416T233820_20180417T002759_C003	SWH Averaging Status, Ocean Backscatter Averaging Status	The SWH and Ocean Averaging Status Flags have been set for one or more records.

6.8 P2P Ocean Retracking Quality Check

Cryosat P2P data includes an ocean retracking quality flag (field 19) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Ocean Retracking Quality Flag: This flag is currently set for products over land and sea ice, but this is to be expected. The number of products with this error flag set is given below.

Number of products with errors:	29
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Product	Test Failed	Description
CS_OFFL_SIR_IOP_220180415T233936_20180416T002910_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T002910_20180416T011850_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T011850_20180416T020824_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T020824_20180416T025803_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T025803_20180416T034738_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T034738_20180416T043717_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T043717_20180416T052651_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T052651_20180416T061630_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T061630_20180416T070605_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T070605_20180416T075544_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T075544_20180416T084518_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T084518_20180416T093457_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T093457_20180416T102432_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T102432_20180416T111411_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T120345_20180416T125325_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20180416T125325_20180416T134259_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T134259_20180416T143238_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T143238_20180416T152212_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T152212_20180416T161152_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_2_20180416T161152_20180416T170126_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T170126_20180416T175105_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T175105_20180416T184039_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T184039_20180416T193019_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T193019_20180416T201953_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T201953_20180416T210932_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T210932_20180416T215907_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T215907_20180416T224846_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T224846_20180416T233820_C001	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.
CS_OFFL_SIR_IOP_220180416T233820_20180417T002759_C003	Ocean Retracking Quality Flag	The Ocean Retracking Quality Flag has been set for one or more records.